

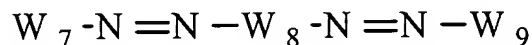
## I. AMENDMENT

### Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-29. (Canceled)

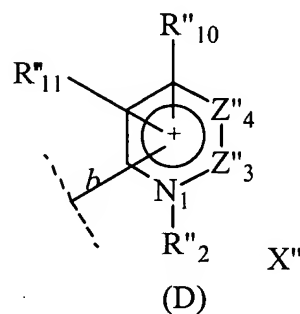
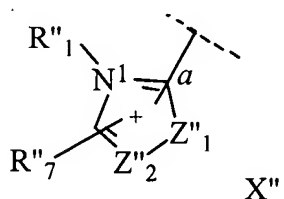
30. (Currently amended) ~~The composition of claim 28, wherein the dye is~~ A dyeing composition for dyeing keratinous fibres comprising, in an appropriate dyeing medium, at least one cationic tertiary para-phenylenediamine comprising a pyrrolidine ring, and a dicationic diazo dye of general formula Vb



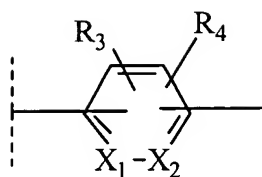
(Vb)

in which

$W_7$  and  $W_9$  represent independently of each other a heteroaromatic radical represented by formulae (C) and (D) below:



$W_8$  represents a carbon-based aromatic, pyridine or pyridazinyl group of formula (E)



(E)

in which formulae (C), (D), (E):

$X''_1$  represents a nitrogen atom or a radical  $CR''_5$

$X''_2$  represents a nitrogen atom or a radical  $CR''_6$

$Z''_1$  represents an oxygen or sulphur atom or a radical  $NR''_8$ ,

$Z''_2$  represents a nitrogen atom or a radical  $CR''_9$ ,

$Z''_3$  represents a nitrogen atom or a radical  $CR''_{12}$ ,

$Z''_4$  represents a nitrogen atom or a radical  $CR''_{13}$ ,

the bond *a* of the 5-membered cationic ring of formula (C) is linked to the azo group of formula (Vb),

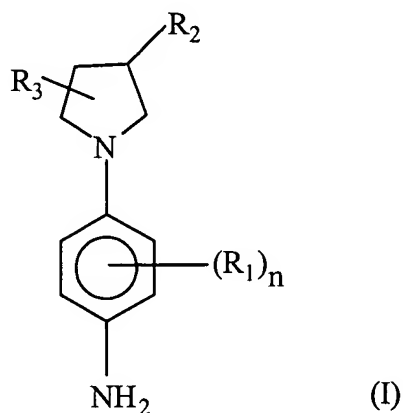
the bond *b* of the 6-membered cationic ring of formula (D) is linked to the azo group of formula (Vb)

$R''_3$ ,  $R''_4$ ,  $R''_5$ ,  $R''_6$ ,  $R''_7$ ,  $R''_9$ ,  $R''_{10}$ ,  $R''_{11}$ ,  $R''_{12}$  and  $R''_{13}$ , represent, together or independently of each other, a hydrogen atom, a linear or branched, saturated or unsaturated  $C_1$ - $C_{16}$  hydrocarbon-based chain, which can form one or more 3- to 6-membered carbon-based rings, one or more carbon atoms of the carbon-based chain of which may be replaced with an oxygen, nitrogen or sulphur atom or with an  $SO_2$  group, and the carbon atoms of which may be, independently of each other, substituted with one or more halogen atoms;  $R''_3$ ,  $R''_4$ ,  $R''_5$ ,  $R''_6$ ,  $R''_7$ ,  $R''_9$ ,  $R''_{10}$ ,  $R''_{11}$ ,  $R''_{12}$  and  $R''_{13}$  not comprising a peroxide bond or diazo or nitroso radicals,

$R''_7$  with  $R''_9$ ,  $R''_{10}$  with  $R''_{11}$  and  $R''_{12}$  with  $R''_{13}$  can form a carbon-based aromatic ring, such as a phenyl,

X'' is an organic or mineral anion[[]];and

wherein said cationic tertiary paraphenylenediamine containing a pyrrolidine ring corresponds to formula I:



in which

n varies from 0 to 4, it being understood that when n is greater than or equal to 2, then the radicals R<sub>1</sub> may be identical or different,

R<sub>1</sub> represents a halogen atom; a saturated or unsaturated, aliphatic or alicyclic, C<sub>1</sub>-C<sub>6</sub> hydrocarbon chain, it being possible for the chain to contain one or more oxygen, nitrogen, silicon or sulphur atoms or an SO<sub>2</sub> group, and it being possible for the chain to be substituted with one or more hydroxyl or amino radicals; an onium radical Z, the radical R<sub>1</sub> not containing a peroxide bond, or diazo, nitro or nitroso radicals,

R<sub>2</sub> represents an onium radical Z or a radical -X-C=NR<sub>8</sub>-NR<sub>9</sub>R<sub>10</sub> in which X represents an oxygen atom or a radical -NR<sub>11</sub> and R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub> and R<sub>11</sub> represent a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a C<sub>1</sub>-C<sub>4</sub> hydroxyalkyl radical,

R<sub>3</sub> represents a hydrogen atom or a hydroxyl radical.

31. (Original) The composition of claim 30, wherein the dye is selected from the group consisting of:

1,3-dimethyl-2-[4-(1,3-dimethyl(imidazol-1-ium)-2-ylazo)phenylazo]imidazol-1-ium.

1,4-dimethyl-3-[4-(1,4-dimethyl(triazol-2-ium)-3-ylazo)phenylazo]triazol-2-ium.

1-methyl-2-[4-(1-methyl(pyridin-1-ium)-2-ylazo)phenylazo]pyridin-1-ium.

1-methyl-3-[4-(1-methyl(pyridin-1-ium)-3-ylazo)phenylazo]pyridin-1-ium.

1,3-dimethyl-2-[4-(3-methyl(thiazol-3-ium)-2-ylazo)phenylazo]imidazol-1-ium.

1,4-dimethyl-3-[4-(3-methyl(thiazol-3-ium)-2-ylazo)phenylazo]triazol-2-ium.

1,3-dimethyl-2-[4-(1,4-dimethyl(triazol-2-ium)-3-ylazo)phenylazo]imidazol-1-ium.

1-methyl-2-[4-(3-methyl(thiazol-3-ium)-2-ylazo)phenylazo]pyridin-1-ium.

1-methyl-3-[4-(3-methyl(thiazol-3-ium)-2-ylazo)phenylazo]pyridin-1-ium.

1,3-dimethyl-2-[4-(1-methyl(pyridin-1-ium)-2-ylazo)phenylazo]imidazol-1-ium.

1,4-dimethyl-3-[4-(1-methyl(pyridin-1-ium)-2-ylazo)-phenylazo]-triazol-2-ium.

1,3-dimethyl-2-[4-(1-(2-hydroxyethyl)(pyridin-1-ium)-2-ylazo)phenylazo]imidazol-1-ium.

1,4-dimethyl-3-[4-(1-(2-hydroxyethyl)(pyridin-1-ium)-2-ylazo)phenylazo]triazol-2-ium.

1,3-dimethyl-2-[4-(1-methyl(pyridin-1-ium)-3-ylazo)phenylazo]imidazol-1-ium.

1,4-dimethyl-3-[4-(1-methyl(pyridin-1-ium)-3-ylazo)phenylazo]triazol-2-ium.

1,3-dimethyl-2-[4-(1-(2-hydroxyethyl)(pyridin-1-ium)-3-ylazo)phenylazo]imidazol-1-ium.

1,4-dimethyl-3-[4-(1-(2-hydroxyethyl)(pyridin-1-ium)-3-ylazo)phenylazo]triazol-2-ium.

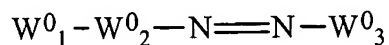
1,3-dimethyl-2-[4-(1,3-dimethyl(imidazol-1-ium)-2-ylazo)-3-methoxyphenylazo]imidazol-1-ium.

1,3-dimethyl-2-[4-(1,4-dimethyl(triazol-2-ium)-3-ylazo)-3-methoxyphenylazo]imidazol-1-ium.

1,3-dimethyl-2-[4-(1-methyl(pyridin-1-ium)-2-ylazo)-3-methoxyphenylazo]imidazol-1-ium.

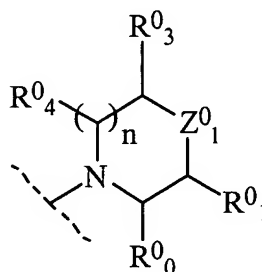
32-39. (Canceled)

40. (Currently amended) ~~The composition of claim 28, wherein the dye is~~ A dyeing composition for dyeing keratinous fibres comprising, in an appropriate dyeing medium, at least one cationic tertiary para-phenylenediamine comprising a pyrrolidine ring, and a monocationic monoazo dye of formula (Vk)



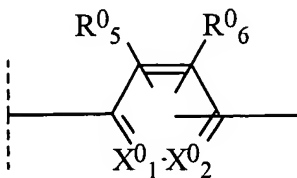
in which

$W^0_1$  represents a 5-, 6-, 7- or 8-membered heterocycle of formula (II<sup>0</sup>) below



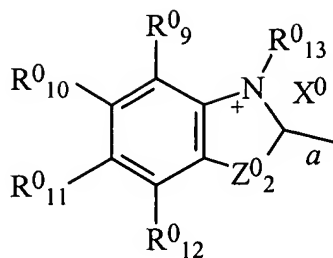
formula (II<sup>0</sup>)

$W^0_2$  represents a divalent carbon-based aromatic, pyridine or pyridazine group of formula (III<sup>0</sup>) below



formula (III<sup>0</sup>)

$W^0_3$  represents a cationic heteroaromatic radical represented by formula (IV<sup>0</sup>) below:



(IV<sup>0</sup>)

in which formulae (II<sup>0</sup>), (III<sup>0</sup>) and (IV<sup>0</sup>):

$n = 0, 1, 2$  or  $3$ , it being understood that when  $n$  is greater than or equal to  $2$ , then the radicals  $R^0_4$  may be identical or different,

$X^0_1$  represents a nitrogen atom or a radical  $CR^0_7$ ,

$X^0_2$  represents a nitrogen atom or a radical  $CR^0_8$ ,

$Z^0_1$  represents a radical  $CHR^0_2$ , an oxygen or sulphur atom or a radical  $NR^0_{14}$ ,

$Z^0_2$  represents an oxygen or sulphur atom or a radical  $NR^0_{15}$

$R^0_0, R^0_1, R^0_2, R^0_3, R^0_4, R^0_5, R^0_6, R^0_7, R^0_8, R^0_9, R^0_{10}, R^0_{11}$  and  $R^0_{12}$ , which may be identical or different, represent a hydrogen atom, a linear or branched  $C_1$ - $C_{10}$  hydrocarbon-based chain, which can form one or more 3- to 6-membered carbon-based rings, and which may be saturated or unsaturated, one or more carbon atoms of the carbon-based chain of which may be replaced with an oxygen, nitrogen or sulphur atom or with an  $SO_2$  group, and the carbon atoms of which may be, independently of each other, substituted with one or more halogen atoms;  $R^0_0, R^0_1, R^0_2, R^0_3, R^0_4, R^0_5, R^0_6, R^0_7, R^0_8, R^0_9, R^0_{11}$  and  $R^0_{12}$  not comprising a peroxide bond or diazo or nitroso radicals,

$R^0_{14}$  represents a hydrogen atom, a linear or branched  $C_1$ - $C_{10}$  hydrocarbon-based chain, which can form one or more 3- to 6-membered carbon-based rings, and which may be saturated or unsaturated, one or more carbon atoms of the carbon-based chain of which may be replaced with an oxygen, nitrogen or sulphur atom or with an  $SO_2$  group, and the carbon atoms of which may be, independently of each other, substituted with one or more halogen atoms,  $R^0_{14}$  not comprising a peroxide

bond or diazo or nitroso radicals; it being understood that the said oxygen, nitrogen and sulphur atoms are not directly linked to the nitrogen atom bearing the radical  $R_{14}^0$ .

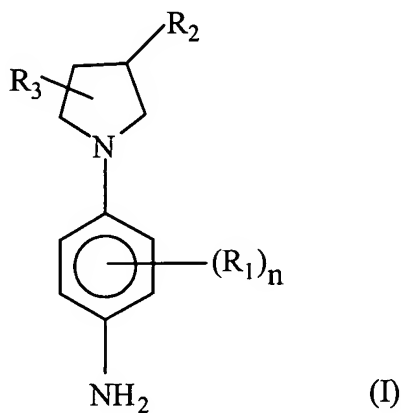
$R_5^0$  with  $R_6^0$  can form a carbon-based aromatic ring, such as a phenyl,

$R_{13}^0$  and  $R_{15}^0$ , which may be identical or different, represent a  $C_1$ - $C_8$  alkyl radical, optionally substituted with one or more radicals chosen from the group consisting of a hydroxyl, a  $C_1$ - $C_2$  alkoxy, a  $C_2$ - $C_4$  (poly)hydroxyalkoxy, an amino, a  $C_1$ - $C_2$  (di)alkylamino, a carboxyl, a sulphonic or an optionally substituted phenyl radical;

the bond a of the cationic ring of formula (IV) is linked to the azo group of formula (I);

$X^0$  is an organic or mineral anion[[]];and

wherein said cationic tertiary paraphenylenediamine containing a pyrrolidine ring corresponds to formula I:



in which

n varies from 0 to 4, it being understood that when n is greater than or equal to 2, then the radicals  $R_1$  may be identical or different,

$R_1$  represents a halogen atom; a saturated or unsaturated, aliphatic or alicyclic,  $C_1$ - $C_6$  hydrocarbon chain, it being possible for the chain to contain one or more oxygen, nitrogen, silicon or sulphur atoms or an  $SO_2$  group, and it being possible for the chain to be substituted with one or more hydroxyl or amino radicals; an onium

radical Z, the radical R<sub>1</sub> not containing a peroxide bond, or diazo, nitro or nitroso radicals,

R<sub>2</sub> represents an onium radical Z or a radical -X-C=NR<sub>8</sub>-NR<sub>9</sub>R<sub>10</sub> in which X represents an oxygen atom or a radical -NR<sub>11</sub> and R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub> and R<sub>11</sub> represent a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a C<sub>1</sub>-C<sub>4</sub> hydroxyalkyl radical,

R<sub>3</sub> represents a hydrogen atom or a hydroxyl radical.

41. (Currently amended) The composition of claim 40, wherein the dye is ~~a monocationic monoazo dye of formula (VI)~~ selected from the group consisting of:

- 1,3-dimethyl-2-[4-(pyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(3-hydroxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(2-carboxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(3-aminopyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(2-carboxy-3-hydroxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(2-carboxamidopyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(2-hydroxymethylpyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(2-carboxy-4-hydroxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(piperidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(3-hydroxypiperidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(3-hydroxymethylpiperidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(3-carboxypiperidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(2-carboxypiperidin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(piperazin-1-yl)phenylazo]benzimidazol-1-ium,
- 1,3-dimethyl-2-[4-(homopiperazin-1-yl)phenylazo]benzimidazol-1-ium,
- 5-amino-1,3-dimethyl-2-[4-(pyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,
- 5-amino-1,3-dimethyl-2-[4-(3-hydroxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,



5-amino-1,3-dimethyl-2-[4-(2-carboxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(3-aminopyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(2-carboxy-3-hydroxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(2-carboxamidopyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(2-hydroxymethylpyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(2-carboxy-4-hydroxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(piperidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(3-hydroxypiperidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(3-hydroxymethylpiperidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(3-carboxypiperidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(2-carboxypiperidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(piperazin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-amino-1,3-dimethyl-2-[4-(homopiperazin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-dimethylamino-1,3-dimethyl-2-[4-(pyrrolidin-1-yl)-phenylazo]benzimidazol-1-ium,  
 5-dimethylamino-1,3-dimethyl-2-[4-(3-hydroxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-dimethylamino-1,3-dimethyl-2-[4-(2-carboxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,  
 5-dimethylamino-1,3-dimethyl-2-[4-(3-aminopyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(2-carboxy-3-hydroxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(2-carboxamidopyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(2-hydroxymethylpyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(2-carboxy-4-hydroxypyrrolidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(piperidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(3-hydroxypiperidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(3-hydroxymethylpiperidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(3-carboxypiperidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(2-carboxypiperidin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(piperazin-1-yl)phenylazo]benzimidazol-1-ium,

5-dimethylamino-1,3-dimethyl-2-[4-(homopiperazin-1-yl)phenylazo]benzimidazol-1-ium.

42-64. (Canceled)

65. (New) The composition of claim 30, wherein the cationic tertiary para-phenylenediamine is such that n is equal to 0.

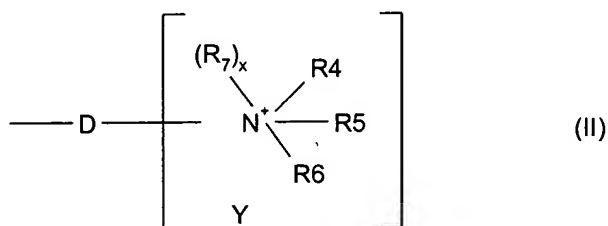
66. (New) The composition of claim 30, wherein the cationic tertiary para-phenylenediamine is such that n is equal to 1 and R<sub>1</sub> is chosen from the group consisting of a halogen atom; a saturated or unsaturated, aliphatic or alicyclic, C<sub>1</sub>-C<sub>6</sub> hydrocarbon chain; it being possible for one

or more carbon atoms to be replaced by an oxygen, nitrogen, silicon or sulphur atom, or by an SO<sub>2</sub> group, the radical R<sub>1</sub> not containing a peroxide bond, or diazo, nitro or nitroso radicals.

67. (New) The composition of claim 30, wherein the cationic tertiary para-phenylenediamine is such that R<sub>1</sub> is chosen from chlorine, bromine, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> hydroxyalkyl, C<sub>1</sub>-C<sub>4</sub> aminoalkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy or C<sub>1</sub>-C<sub>4</sub> hydroxyalkoxy radicals.

68. (New) The composition of claim 67, wherein the cationic tertiary para-phenylenediamine is such that R<sub>1</sub> is chosen from a methyl, hydroxymethyl, 2-hydroxyethyl, 1,2-dihydroxyethyl, methoxy, isopropoxy or 2-hydroxyethoxy radical.

69. (New) The composition of claim 30, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> represents the onium radical Z corresponding to formula (II)



in which

D is a single bond of a linear or branched C<sub>1</sub>-C<sub>14</sub> alkylene chain which may contain one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or amino radicals and which may carry one or more ketone functional groups;

R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub>, taken separately, represent a C<sub>1</sub>-C<sub>15</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> amidoalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical in which the amine is mono- or di-substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; or

R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> together, in pairs, form, with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated carbon ring which may contain one or more heteroatoms, it being possible for the cationic ring to be substituted with a halogen atom, a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxy-alkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a carboxyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl radical, a thio (-SH) radical, a C<sub>1</sub>-C<sub>6</sub> thioalkyl (-R-SH) radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylthio radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical;

R<sub>7</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphinyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1,

when x = 0, then the linking arm is attached to the nitrogen atom carrying the radicals R<sub>4</sub> to R<sub>6</sub>;

when x = 1, then two of the radicals R<sub>4</sub> to R<sub>6</sub> form, together with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated ring and D is linked to the carbon atom of the saturated ring;

Y is a counter-ion.

70. (New) The composition of claim 69, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> corresponds to formula II in which x is equal to 0 and R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> separately are

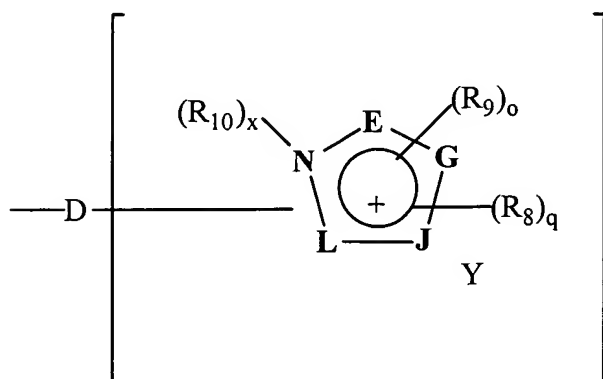
preferably chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>4</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> amidoalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, or R<sub>4</sub> with R<sub>5</sub> form together an azetidine ring, a pyrrolidine, piperidine, piperazine or morpholine ring, R<sub>6</sub> being chosen in this case from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, an aminoalkyl radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkyl carboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical.

71. (New) The composition of claim 69, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> corresponds to formula II in which x is equal to 1 and R<sub>7</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; R<sub>4</sub> with R<sub>5</sub> together form an azetidine, pyrrolidine, piperidine, piperazine or morpholine ring, R<sub>6</sub> being chosen in this case from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyl alkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical.

72. (New) The composition of claim 69, wherein the cationic tertiary para-phenylenediamine is such that D is a single bond or an alkylene chain which may be substituted.

73. (New) The composition of claim 69, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> is a trialkylammonium radical.

74. (New) The composition of claim 30, wherein the cationic tertiary para-phenylenediamine is such that  $R_2$  represents the onium radical Z corresponding to formula III



(III)

in which

D is a single bond or a linear or branched  $C_1$ - $C_{14}$  alkylene chain which may contain one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl,  $C_1$ - $C_6$  alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a pyrrole, pyrazole, imidazole, triazole, oxazole, isooxazole, thiazole, isothiazole ring,

q is an integer between 0 and 4 inclusive;

o is an integer between 0 and 3 inclusive;

q+o is an integer between 0 and 4;

the radicals  $R_8$ , which are identical or different, represent a halogen atom, a hydroxyl radical, a  $C_1$ - $C_6$  alkyl radical, a  $C_1$ - $C_6$  monohydroxyalkyl radical, a  $C_2$ - $C_6$  polyhydroxyalkyl radical, a  $C_1$ - $C_6$  alkoxy radical, a tri( $C_1$ - $C_6$ )alkylsilane( $C_1$ - $C_6$ )alkyl radical, an amido radical, a carboxyl radical, a  $C_1$ - $C_6$  alkylcarbonyl radical, a thio radical, a  $C_1$ - $C_6$  thioalkyl radical, a ( $C_1$ - $C_6$ )alkylthio radical, an amino radical, an amino radical which is mono- or di-substituted with a ( $C_1$ -

C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical or a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; it being understood that the radicals R<sub>8</sub> are carried by a carbon atom,

the radicals R<sub>9</sub>, which are identical or different, represent a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a benzyl radical; it being understood that the radicals R<sub>9</sub> are carried by a nitrogen,

R<sub>10</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

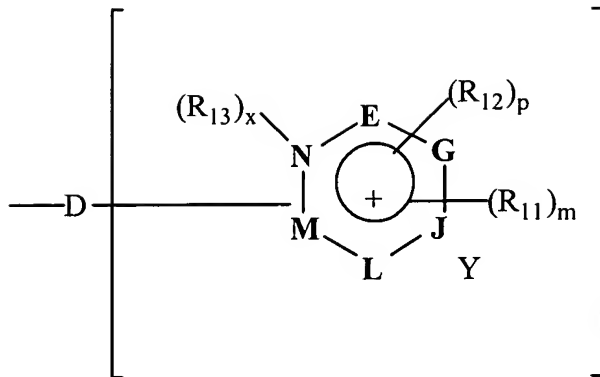
when x = 1, the linking arm D is attached to one of the vertices E, G, J or L,

Y is a counter-ion.

75. (New) The composition of claim 74, wherein the cationic tertiary para-phenylenediamine is such that the vertices E, G, J and L form an imidazole ring.

76. (New) The composition of claim 74, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 0, D is a single bond or an alkylene chain which may be substituted.

77. (New) The composition of claim 30, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> represents an onium radical Z corresponding to formula IV



(IV)

in which:

D is a single bond or a linear or branched C<sub>1</sub>-C<sub>14</sub> alkylene chain which may contain one or more heteroatoms chosen from an oxygen, sulphur or nitrogen atom, and which may be substituted with one or more hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L and M, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a ring chosen from the pyridine, pyrimidine, pyrazine, triazine and pyridazine rings;

p is an integer between 0 and 3 inclusive;

m is an integer between 0 and 5 inclusive;

p+m is an integer between 0 and 5;

the radicals R<sub>11</sub>, which are identical or different, represent a halogen atom, a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a carboxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, a thio radical, a C<sub>1</sub>-C<sub>6</sub> thioalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylthio radical, an amino radical, an amino radical which is substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub>



monohydroxyalkyl radical or a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; it being understood that the radicals R<sub>11</sub> are carried by a carbon atom,

the radicals R<sub>12</sub>, which are identical or different, represent a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a benzyl radical; it being understood that the radicals R<sub>12</sub> are carried by a nitrogen,

R<sub>13</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

when x = 1, the linking arm D is attached to one of the vertices E, G, J, L or M,

Y is a counter-ion.

78. (New) The composition of claim 77, wherein the vertices E, G, J, L and M form, with the nitrogen of the ring, a ring chosen from pyridine and pyrimidine rings.

79. (New) The composition of claim 77, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 0 and R<sub>11</sub> is chosen from a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical or

a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical and R<sub>12</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical.

80. (New) The composition of claim 77, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 1 and R<sub>13</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl radical, an amido radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; R<sub>11</sub> is chosen from a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; and R<sub>12</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical.

81. (New) The composition of claim 77, wherein the cationic tertiary para-phenylenediamine is such that R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub> are alkyl radicals which may be substituted.

82. (New) The composition of claim 30, wherein the cationic tertiary para-phenylenediamine is such that the radical R<sub>2</sub> is the radical of formula -XP(O)(O-) OCH<sub>2</sub>CH<sub>2</sub>N<sup>+</sup>(CH<sub>3</sub>)<sub>3</sub> where X represents an oxygen atom or a radical -NR<sub>14</sub>, R<sub>14</sub> representing a hydrogen, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a hydroxyalkyl radical.

83. (New) The composition of claim 30, wherein the cationic tertiary para-phenylenediamine is such that the radical R<sub>2</sub> is a guanidine radical of formula -X-C=NR<sub>8</sub>-NR<sub>9</sub>R<sub>10</sub>, X represents an oxygen atom or a radical -NR<sub>11</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub> and R<sub>11</sub> representing a hydrogen, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a hydroxyalkyl radical.

84. (New) The composition of claim 30, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride,  
[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide  
N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethyl-guanidinium chloride  
N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride  
3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride  
[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride  
[1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammonium-hexyl)dimethylammonium dichloride  
[1-(4-Aminophenyl)pyrrolidin-3-yl]oxophosphorylcholine  
{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}trimethylammonium chloride  
1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium chloride  
3-{3-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-ium chloride  
1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride  
3-{3-[1-(5-trimethylsilyl-4-amino-3-trimethylsilylphenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-ium chloride  
[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride  
[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride  
N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]guanidinium chloride  
3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilanylpropylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(trimethylammoniumhexyl-dimethylammonium dichloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]oxophosphorylcholine

{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}trimethylammonium chloride

1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium chloride

3-{3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]-propyl} 1-methyl-3H-imidazol-1-um chloride

1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride

[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

3-{3-[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-um chloride

[1-(5-trimethylsilanylethyl-4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(5-trimethylsilanylethyl-4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3- {[1-(4-Amino-3-methylphenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyltrimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium iodide,

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]heptyltrimethylammonium iodide

[1-(4-Aminophenyl)pyrrolidin-3-yl]octyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]decyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyltrimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyltrimethylammonium iodide.

85. (New) The composition of claim 30, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide

N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride

N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl](2-hydroxyethyl)dimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilanylpropyl)ammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride  
 N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilanylpropyl)ammonium chloride  
 1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride  
 1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride  
 3-{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride  
 3-{[1-(4-Amino-3-methylphenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride  
 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-ium chloride  
 3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanyl-propyl)-3H-imidazol-1-ium chloride  
 [1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium chloride  
 [1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium iodide

[1-(4-Aminophenyl)pyrrolidin-3-yl]propyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium bromide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium methosulphate  
 [1-(4-aminophenyl)pyrrolidin-3-yl]butyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium chloride  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium iodide.

86. (New) The composition of claim 30, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide  
 N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammoniumhexyl)dimethylammonium dichloride  
 1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyltrimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]heptyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]octyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]decyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyltrimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyltrimethylammonium iodide.

87. (New) The composition of claim 30, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride.



88. (New) The composition of claim 30, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride, and

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride.

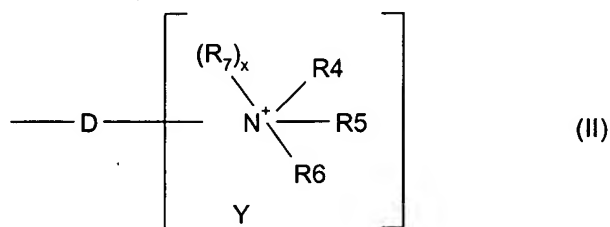
89. (New) The composition of claim 31, wherein the cationic tertiary para-phenylenediamine is such that n is equal to 0.

90. (New) The composition of claim 31, wherein the cationic tertiary para-phenylenediamine is such that n is equal to 1 and R<sub>1</sub> is chosen from the group consisting of a halogen atom; a saturated or unsaturated, aliphatic or alicyclic, C<sub>1</sub>-C<sub>6</sub> hydrocarbon chain; it being possible for one or more carbon atoms to be replaced by an oxygen, nitrogen, silicon or sulphur atom, or by an SO<sub>2</sub> group, the radical R<sub>1</sub> not containing a peroxide bond, or diazo, nitro or nitroso radicals.

91. (New) The composition of claim 31, wherein the cationic tertiary para-phenylenediamine is such that R<sub>1</sub> is chosen from chlorine, bromine, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> hydroxyalkyl, C<sub>1</sub>-C<sub>4</sub> aminoalkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy or C<sub>1</sub>-C<sub>4</sub> hydroxyalkoxy radicals.

92. (New) The composition of claim 91, wherein the cationic tertiary para-phenylenediamine is such that R<sub>1</sub> is chosen from a methyl, hydroxymethyl, 2-hydroxyethyl, 1,2-dihydroxyethyl, methoxy, isopropoxy or 2-hydroxyethoxy radical.

93. (New) The composition of claim 31, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> represents the onium radical Z corresponding to formula (II)



in which

D is a single bond of a linear or branched C<sub>1</sub>-C<sub>14</sub> alkylene chain which may contain one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or amino radicals and which may carry one or more ketone functional groups;

R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub>, taken separately, represent a C<sub>1</sub>-C<sub>15</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> amidoalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical in which the amine is mono- or di-substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; or

R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> together, in pairs, form, with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated carbon ring which may contain one or more heteroatoms, it being possible for the cationic ring to be substituted with a halogen atom, a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxy-alkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a carboxyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl radical, a thio (-SH) radical, a C<sub>1</sub>-C<sub>6</sub> thioalkyl (-R-SH) radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylthio radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical;

R<sub>7</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphinyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a

(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1,

when x = 0, then the linking arm is attached to the nitrogen atom carrying the radicals R<sub>4</sub> to R<sub>6</sub>;

when x = 1, then two of the radicals R<sub>4</sub> to R<sub>6</sub> form, together with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated ring and D is linked to the carbon atom of the saturated ring;

Y is a counter-ion.

94. (New) The composition of claim 93, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> corresponds to formula II in which x is equal to 0 and R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> separately are preferably chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>4</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> amidoalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, or R<sub>4</sub> with R<sub>5</sub> form together an azetidine ring, a pyrrolidine, piperidine, piperazine or morpholine ring, R<sub>6</sub> being chosen in this case from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, an aminoalkyl radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkyl carboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical.

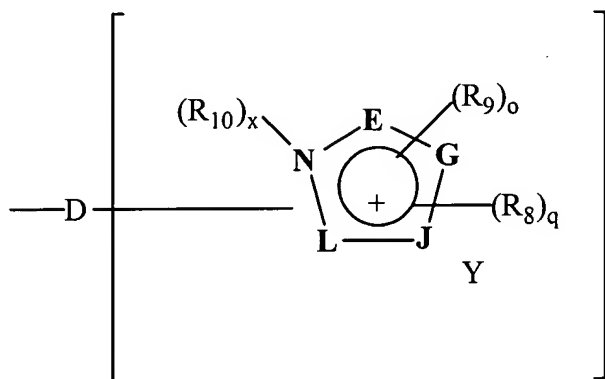
95. (New) The composition of claim 93, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> corresponds to formula II in which x is equal to 1 and R<sub>7</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; R<sub>4</sub> with R<sub>5</sub> together form an azetidine, pyrrolidine, piperidine, piperazine or morpholine ring, R<sub>6</sub> being chosen in this case from a C<sub>1</sub>-C<sub>6</sub> alkyl

radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyl alkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical.

96. (New) The composition of claim 93, wherein the cationic tertiary para-phenylenediamine is such that D is a single bond or an alkylene chain which may be substituted.

97. (New) The composition of claim 93, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> is a trialkylammonium radical.

98. (New) The composition of claim 31, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> represents the onium radical Z corresponding to formula III



(III)

in which

D is a single bond or a linear or branched C<sub>1</sub>-C<sub>14</sub> alkylene chain which may contain one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a pyrrole, pyrazole, imidazole, triazole, oxazole, isooxazole, thiazole, isothiazole ring,

q is an integer between 0 and 4 inclusive;

is an integer between 0 and 3 inclusive;

q+t is an integer between 0 and 4;

the radicals  $R_8$ , which are identical or different, represent a halogen atom, a hydroxyl radical, a  $C_1$ - $C_6$  alkyl radical, a  $C_1$ - $C_6$  monohydroxyalkyl radical, a  $C_2$ - $C_6$  polyhydroxyalkyl radical, a  $C_1$ - $C_6$  alkoxy radical, a tri( $C_1$ - $C_6$ )alkylsilane( $C_1$ - $C_6$ )alkyl radical, an amido radical, a carboxyl radical, a  $C_1$ - $C_6$  alkylcarbonyl radical, a thio radical, a  $C_1$ - $C_6$  thioalkyl radical, a ( $C_1$ - $C_6$ )alkylthio radical, an amino radical, an amino radical which is mono- or di-substituted with a ( $C_1$ - $C_6$ )alkyl, ( $C_1$ - $C_6$ )alkylcarbonyl, amido or ( $C_1$ - $C_6$ )alkylsulphonyl radical; a  $C_1$ - $C_6$  monohydroxyalkyl radical or a  $C_2$ - $C_6$  polyhydroxyalkyl radical; it being understood that the radicals  $R_8$  are carried by a carbon atom,

the radicals  $R_9$ , which are identical or different, represent a  $C_1$ - $C_6$  alkyl radical, a  $C_1$ - $C_6$  monohydroxyalkyl radical, a  $C_2$ - $C_6$  polyhydroxyalkyl radical, a tri( $C_1$ - $C_6$ )alkylsilane( $C_1$ - $C_6$ )alkyl radical, a ( $C_1$ - $C_6$ )alkoxy( $C_1$ - $C_6$ )alkyl radical, a  $C_1$ - $C_6$  carbamylalkyl radical, a ( $C_1$ - $C_6$ )alkylcarboxy( $C_1$ - $C_6$ )alkyl radical, a benzyl radical; it being understood that the radicals  $R_9$  are carried by a nitrogen,

$R_{10}$  represents a  $C_1$ - $C_6$  alkyl radical; a  $C_1$ - $C_6$  monohydroxyalkyl radical; a  $C_2$ - $C_6$  polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a  $C_1$ - $C_6$  aminoalkyl radical, a  $C_1$ - $C_6$  aminoalkyl radical whose amine is substituted with a ( $C_1$ - $C_6$ )alkyl, ( $C_1$ - $C_6$ )alkylcarbonyl, amido or ( $C_1$ - $C_6$ )alkylsulphonyl radical; a  $C_1$ - $C_6$  carboxyalkyl radical; a  $C_1$ - $C_6$  carbamylalkyl radical; a  $C_1$ - $C_6$  trifluoroalkyl radical; a tri( $C_1$ - $C_6$ )alkylsilane( $C_1$ - $C_6$ )alkyl radical; a  $C_1$ - $C_6$  sulphonamidoalkyl radical; a ( $C_1$ - $C_6$ )alkylcarboxy( $C_1$ - $C_6$ )alkyl radical; a ( $C_1$ - $C_6$ )alkylsulphonyl( $C_1$ - $C_6$ )alkyl radical; a ( $C_1$ - $C_6$ )alkylsulphonyl( $C_1$ - $C_6$ )alkyl radical; a ( $C_1$ -

$C_6$ )alkylcarbonyl( $C_1$ - $C_6$ )alkyl radical; an N-( $C_1$ - $C_6$ )alkylcarbamyl( $C_1$ - $C_6$ )alkyl radical; an N-( $C_1$ - $C_6$ )alkylsulphonamido( $C_1$ - $C_6$ )alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

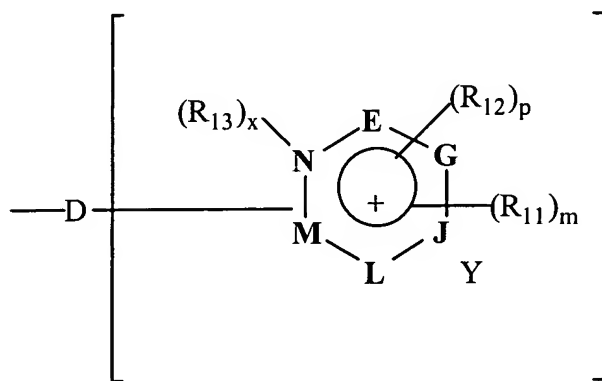
when x = 1, the linking arm D is attached to one of the vertices E, G, J or L,

Y is a counter-ion.

99. (New) The composition of claim 98, wherein the cationic tertiary para-phenylenediamine is such that the vertices E, G, J and L form an imidazole ring.

100. (New) The composition of claim 98, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 0, D is a single bond or an alkylene chain which may be substituted.

101. (New) The composition of claim 31, wherein the cationic tertiary para-phenylenediamine is such that  $R_2$  represents an onium radical Z corresponding to formula IV



(IV)

in which:

D is a single bond or a linear or branched  $C_1$ - $C_{14}$  alkylene chain which may contain one or more heteroatoms chosen from an oxygen, sulphur or nitrogen atom, and which

may be substituted with one or more hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L and M, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a ring chosen from the pyridine, pyrimidine, pyrazine, triazine and pyridazine rings;

p is an integer between 0 and 3 inclusive;

m is an integer between 0 and 5 inclusive;

p+m is an integer between 0 and 5;

the radicals R<sub>11</sub>, which are identical or different, represent a halogen atom, a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a carboxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, a thio radical, a C<sub>1</sub>-C<sub>6</sub> thioalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylthio radical, an amino radical, an amino radical which is substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical or a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; it being understood that the radicals R<sub>11</sub> are carried by a carbon atom,

the radicals R<sub>12</sub>, which are identical or different, represent a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a benzyl radical; it being understood that the radicals R<sub>12</sub> are carried by a nitrogen,

R<sub>13</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-

C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

when x = 1, the linking arm D is attached to one of the vertices E, G, J, L or M,

Y is a counter-ion.

102. (New) The composition of claim 101, wherein the vertices E, G, J, L and M form, with the nitrogen of the ring, a ring chosen from pyridine and pyrimidine rings.

103. (New) The composition of claim 101, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 0 and R<sub>11</sub> is chosen from a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical or a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical and R<sub>12</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical.

104. (New) The composition of claim 101, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 1 and R<sub>13</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl radical, an amido radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; R<sub>11</sub> is chosen from a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di-substituted



with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; and R<sub>12</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical.

105. (New) The composition of claim 101, wherein the cationic tertiary para-phenylenediamine is such that R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub> are alkyl radicals which may be substituted.

106. (New) The composition of claim 31, wherein the cationic tertiary para-phenylenediamine is such that the radical R<sub>2</sub> is the radical of formula -XP(O)(O-) OCH<sub>2</sub>CH<sub>2</sub>N<sup>+</sup>(CH<sub>3</sub>)<sub>3</sub> where X represents an oxygen atom or a radical -NR<sub>14</sub>, R<sub>14</sub> representing a hydrogen, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a hydroxyalkyl radical.

107. (New) The composition of claim 31, wherein the cationic tertiary para-phenylenediamine is such that the radical R<sub>2</sub> is a guanidine radical of formula -X-C=NR<sub>8</sub>-NR<sub>9</sub>R<sub>10</sub>, X represents an oxygen atom or a radical -NR<sub>11</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub> and R<sub>11</sub> representing a hydrogen, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a hydroxyalkyl radical.

108. (New) The composition of claim 31, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride,

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide

N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethyl-guanidinium chloride

N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilanylpropyl)ammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammonium-hexyl)dimethylammonium dichloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]oxophosphorylcholine  
 {2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl} trimethylammonium chloride  
 1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium chloride  
 3-{3-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-ium chloride  
 1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride  
 3-{3-[1-(5-trimethylsilanylethyl-4-Amino-3- trimethylsilanylethylphenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-um chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride  
 N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilanylpropylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(trimethylammoniumhexyl-dimethylammonium dichloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]oxophosphorylcholine  
 {2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl} trimethylammonium chloride  
 1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium chloride  
 3-{3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]-propyl} 1-methyl-3H-imidazol-1-um chloride

1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride

[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

3-{3-[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-um chloride

[1-(5-trimethylsilanylethyl-4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(5-trimethylsilanylethyl-4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3-{[1-(4-Amino-3-methylphenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium iodide,

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyl dimethylammonium chloride  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyl dimethylammonium iodide.

109. (New) The composition of claim 31, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide  
 N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl](2-hydroxyethyl)dimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride  
 N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilanylpropylammonium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3-{[1-(4-Amino-3-methylphenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanyl-propyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyltrimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyltrimethylammonium iodide

[1-(4-Aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]heptyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]octyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]decyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyltrimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyltrimethylammonium iodide.

110. (New) The composition of claim 31, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide

N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride

N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammoniumhexyl)dimethylammonium dichloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyltrimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyltrimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyltrimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium chloride  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium iodide.

111. (New) The composition of claim 31, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride  
 1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride.

112. (New) The composition of claim 31, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride, and  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride.

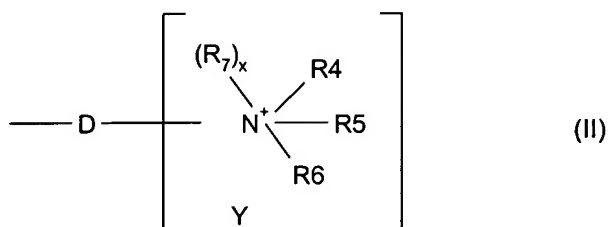
113. (New) The composition of claim 40, wherein the cationic tertiary para-phenylenediamine is such that n is equal to 0.

114. (New) The composition of claim 40, wherein the cationic tertiary para-phenylenediamine is such that n is equal to 1 and R<sub>1</sub> is chosen from the group consisting of a halogen atom; a saturated or unsaturated, aliphatic or alicyclic, C<sub>1</sub>-C<sub>6</sub> hydrocarbon chain; it being possible for one or more carbon atoms to be replaced by an oxygen, nitrogen, silicon or sulphur atom, or by an SO<sub>2</sub> group, the radical R<sub>1</sub> not containing a peroxide bond, or diazo, nitro or nitroso radicals.

115. (New) The composition of claim 40, wherein the cationic tertiary para-phenylenediamine is such that R<sub>1</sub> is chosen from chlorine, bromine, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> hydroxyalkyl, C<sub>1</sub>-C<sub>4</sub> aminoalkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy or C<sub>1</sub>-C<sub>4</sub> hydroxyalkoxy radicals.

116. (New) The composition of claim 115, wherein the cationic tertiary para-phenylenediamine is such that R<sub>1</sub> is chosen from a methyl, hydroxymethyl, 2-hydroxyethyl, 1,2-dihydroxyethyl, methoxy, isopropoxy or 2-hydroxyethoxy radical.

117. (New) The composition of claim 40, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> represents the onium radical Z corresponding to formula (II)



in which

D is a single bond of a linear or branched C<sub>1</sub>-C<sub>14</sub> alkylene chain which may contain one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or amino radicals and which may carry one or more ketone functional groups;

R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub>, taken separately, represent a C<sub>1</sub>-C<sub>15</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> amidoalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical in which the amine is mono- or di-substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; or

R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> together, in pairs, form, with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated carbon ring which may contain one or more heteroatoms, it being possible for the cationic ring to be substituted with a



halogen atom, a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxy-alkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a carboxyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl radical, a thio (-SH) radical, a C<sub>1</sub>-C<sub>6</sub> thioalkyl (-R-SH) radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylthio radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical;

R<sub>7</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphinyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1,

when x = 0, then the linking arm is attached to the nitrogen atom carrying the radicals R<sub>4</sub> to R<sub>6</sub>;

when x = 1, then two of the radicals R<sub>4</sub> to R<sub>6</sub> form, together with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated ring and D is linked to the carbon atom of the saturated ring;

Y is a counter-ion.

118. (New) The composition of claim 117, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> corresponds to formula II in which x is equal to 0 and R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> separately are preferably chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>4</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> amidoalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, or R<sub>4</sub> with R<sub>5</sub> form together an

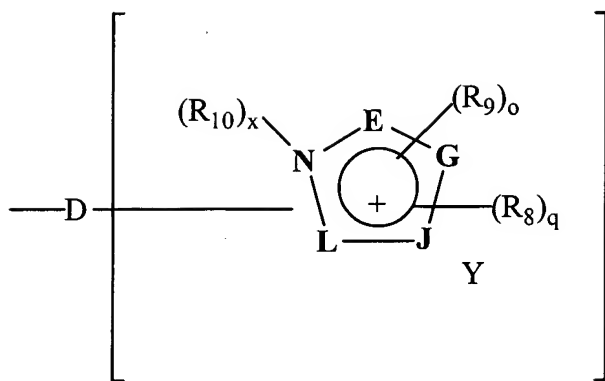
azetidine ring, a pyrrolidine, piperidine, piperazine or morpholine ring,  $R_6$  being chosen in this case from a  $C_1$ - $C_6$  alkyl radical; a  $C_1$ - $C_6$  monohydroxyalkyl radical, a  $C_2$ - $C_6$  polyhydroxyalkyl radical; a  $C_1$ - $C_6$  aminoalkyl radical, an aminoalkyl radical which is mono- or di-substituted with a  $(C_1$ - $C_6)$ alkyl radical, a  $(C_1$ - $C_6)$ alkylcarbonyl, amido or  $(C_1$ - $C_6)$ alkylsulphonyl radical; a  $C_1$ - $C_6$  carbamylalkyl radical; a tri $(C_1$ - $C_6)$ alkylsilane $(C_1$ - $C_6)$ alkyl radical; a  $(C_1$ - $C_6)$ alkyl carboxy $(C_1$ - $C_6)$ alkyl radical; a  $(C_1$ - $C_6)$ alkylcarbonyl $(C_1$ - $C_6)$ alkyl radical; an N- $(C_1$ - $C_6)$ alkylcarbamyl $(C_1$ - $C_6)$ alkyl radical.

119. (New) The composition of claim 117, wherein the cationic tertiary para-phenylenediamine is such that  $R_2$  corresponds to formula II in which x is equal to 1 and  $R_7$  is chosen from a  $C_1$ - $C_6$  alkyl radical; a  $C_1$ - $C_6$  monohydroxyalkyl radical; a  $C_2$ - $C_6$  polyhydroxyalkyl radical; a  $C_1$ - $C_6$  aminoalkyl radical, a  $C_1$ - $C_6$  aminoalkyl radical whose amine is mono- or di-substituted with a  $(C_1$ - $C_6)$ alkyl,  $(C_1$ - $C_6)$ alkylcarbonyl, amido or a  $(C_1$ - $C_6)$ alkylsulphonyl radical; a  $C_1$ - $C_6$  carbamylalkyl radical, a tri $(C_1$ - $C_6)$ alkylsilane $(C_1$ - $C_6)$ alkyl radical; a  $(C_1$ - $C_6)$ alkylcarboxy $(C_1$ - $C_6)$ alkyl radical; a  $(C_1$ - $C_6)$ alkylcarbonyl $(C_1$ - $C_6)$ alkyl radical; an N- $(C_1$ - $C_6)$ alkylcarbamyl $(C_1$ - $C_6)$ alkyl radical;  $R_4$  with  $R_5$  together form an azetidine, pyrrolidine, piperidine, piperazine or morpholine ring,  $R_6$  being chosen in this case from a  $C_1$ - $C_6$  alkyl radical; a  $C_1$ - $C_6$  monohydroxyalkyl radical; a  $C_2$ - $C_6$  polyhydroxyl alkyl radical; a  $C_1$ - $C_6$  aminoalkyl radical; a  $C_1$ - $C_6$  aminoalkyl radical whose amine is mono- or di-substituted with a  $(C_1$ - $C_6)$ alkyl,  $(C_1$ - $C_6)$ alkylcarbonyl, amido or  $(C_1$ - $C_6)$ alkylsulphonyl radical; a  $C_1$ - $C_6$  carbamylalkyl radical; a tri $(C_1$ - $C_6)$ alkylsilane $(C_1$ - $C_6)$ alkyl radical; a  $(C_1$ - $C_6)$ alkylcarboxy $(C_1$ - $C_6)$ alkyl radical; a  $(C_1$ - $C_6)$ alkylcarbonyl $(C_1$ - $C_6)$ alkyl radical; an N- $(C_1$ - $C_6)$ alkylcarbamyl $(C_1$ - $C_6)$ alkyl radical.

120. (New) The composition of claim 117, wherein the cationic tertiary para-phenylenediamine is such that D is a single bond or an alkylene chain which may be substituted.

121. (New) The composition of claim 117, wherein the cationic tertiary para-phenylenediamine is such that  $R_2$  is a trialkylammonium radical.

122. (New) The composition of claim 40, wherein the cationic tertiary para-phenylenediamine is such that  $R_2$  represents the onium radical Z corresponding to formula III



(III)

in which

D is a single bond or a linear or branched C<sub>1</sub>-C<sub>14</sub> alkylene chain which may contain one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a pyrrole, pyrazole, imidazole, triazole, oxazole, isooxazole, thiazole, isothiazole ring,

q is an integer between 0 and 4 inclusive;

is an integer between 0 and 3 inclusive;

q+o is an integer between 0 and 4;

the radicals R<sub>8</sub>, which are identical or different, represent a halogen atom, a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a carboxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, a thio radical, a C<sub>1</sub>-C<sub>6</sub> thioalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylthio radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub>

monohydroxyalkyl radical or a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; it being understood that the radicals R<sub>8</sub> are carried by a carbon atom,

the radicals R<sub>9</sub>, which are identical or different, represent a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a benzyl radical; it being understood that the radicals R<sub>9</sub> are carried by a nitrogen,

R<sub>10</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

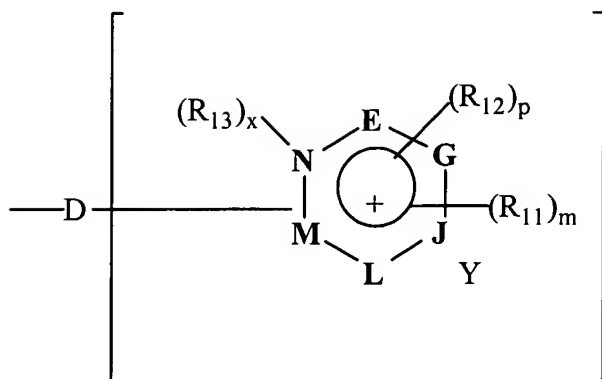
when x = 1, the linking arm D is attached to one of the vertices E, G, J or L,

Y is a counter-ion.

123. (New) The composition of claim 122, wherein the cationic tertiary para-phenylenediamine is such that the vertices E, G, J and L form an imidazole ring.

124. (New) The composition of claim 122, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 0, D is a single bond or an alkylene chain which may be substituted.

125. (New) The composition of claim 40, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> represents an onium radical Z corresponding to formula IV



(IV)

in which:

D is a single bond or a linear or branched  $C_1$ - $C_{14}$  alkylene chain which may contain one or more heteroatoms chosen from an oxygen, sulphur or nitrogen atom, and which may be substituted with one or more hydroxyl,  $C_1$ - $C_6$  alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L and M, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a ring chosen from the pyridine, pyrimidine, pyrazine, triazine and pyridazine rings;

p is an integer between 0 and 3 inclusive;

m is an integer between 0 and 5 inclusive;

p+m is an integer between 0 and 5;

the radicals  $R_{11}$ , which are identical or different, represent a halogen atom, a hydroxyl radical, a  $C_1$ - $C_6$  alkyl radical, a  $C_1$ - $C_6$  monohydroxyalkyl radical, a  $C_2$ - $C_6$  polyhydroxyalkyl radical, a  $C_1$ - $C_6$  alkoxy radical, a tri( $C_1$ - $C_6$ )alkylsilane( $C_1$ - $C_6$ )alkyl radical, an amido radical, a carboxyl radical, a  $C_1$ - $C_6$  alkylcarbonyl radical, a thio radical, a  $C_1$ - $C_6$  thioalkyl radical, a ( $C_1$ - $C_6$ )alkylthio radical, an amino radical, an amino radical which is substituted with a ( $C_1$ - $C_6$ )alkyl, ( $C_1$ - $C_6$ )alkylcarbonyl, amido or ( $C_1$ - $C_6$ )alkylsulphonyl radical; a  $C_1$ - $C_6$

monohydroxyalkyl radical or a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; it being understood that the radicals R<sub>11</sub> are carried by a carbon atom,

the radicals R<sub>12</sub>, which are identical or different, represent a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a benzyl radical; it being understood that the radicals R<sub>12</sub> are carried by a nitrogen,

R<sub>13</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

when x = 1, the linking arm D is attached to one of the vertices E, G, J, L or M,

Y is a counter-ion.

126. (New) The composition of claim 125, wherein the vertices E, G, J, L and M form, with the nitrogen of the ring, a ring chosen from pyridine and pyrimidine rings.

127. (New) The composition of claim 125, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 0 and R<sub>11</sub> is chosen from a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub>

monohydroxyalkyl radical or a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical and R<sub>12</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical.

128. (New) The composition of claim 125, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 1 and R<sub>13</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl radical, an amido radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; R<sub>11</sub> is chosen from a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; and R<sub>12</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical.

129. (New) The composition of claim 125, wherein the cationic tertiary para-phenylenediamine is such that R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub> are alkyl radicals which may be substituted.

130. (New) The composition of claim 40, wherein the cationic tertiary para-phenylenediamine is such that the radical R<sub>2</sub> is the radical of formula -XP(O)(O-) OCH<sub>2</sub>CH<sub>2</sub>N<sup>+</sup>(CH<sub>3</sub>)<sub>3</sub> where X represents an oxygen atom or a radical -NR<sub>14</sub>, R<sub>14</sub> representing a hydrogen, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a hydroxyalkyl radical.

131. (New) The composition of claim 40, wherein the cationic tertiary para-phenylenediamine is such that the radical R<sub>2</sub> is a guanidine radical of formula -X-C=NR<sub>8</sub>-NR<sub>9</sub>R<sub>10</sub>, X represents an oxygen atom or a radical -NR<sub>11</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub> and R<sub>11</sub> representing a hydrogen, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a hydroxyalkyl radical.

132. (New) The composition of claim 40, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride,  
[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide  
N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethyl-guanidinium chloride  
N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride  
3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride  
[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride  
[1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammonium-hexyl)dimethylammonium dichloride  
[1-(4-Aminophenyl)pyrrolidin-3-yl]oxophosphorylcholine  
{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl} trimethylammonium chloride  
1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium chloride  
3-{3-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-ium chloride  
1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride  
3-{3-[1-(5-trimethylsilyl-4-amino-3-trimethylsilyl-phenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-ium chloride  
[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride  
[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride  
N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]guanidinium chloride  
3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride



[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(trimethylammoniumhexyl)-dimethylammonium dichloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]oxophosphorylcholine

{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}trimethylammonium chloride

1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium chloride

3-{3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]-propyl} 1-methyl-3H-imidazol-1-ium chloride

1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride

[1-(4-Amino-3-trimethylsilyl-ethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(4-Amino-3-trimethylsilyl-ethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

3-{3-[1-(4-Amino-3-trimethylsilyl-ethylphenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-ium chloride

[1-(5-trimethylsilyl-ethyl-4-Amino-3-trimethylsilyl-ethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(5-trimethylsilyl-ethyl-4-Amino-3-trimethylsilyl-ethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3- {[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]carbamoyl}methyl}-1-methyl-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium iodide,

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide

[1-(4-Aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium iodide.

133. (New) The composition of claim 40, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide

N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride

N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl](2-hydroxyethyl)dimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride  
 N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride  
 1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride  
 1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride  
 3-{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride  
 3-{[1-(4-Amino-3-methylphenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride  
 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride  
 3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride  
 [1-(4-aminophenyl)pyrrolidin-3-yl]ethyl dimethylammonium chloride  
 [1-(4-aminophenyl)pyrrolidin-3-yl]ethyl dimethylammonium iodide

[1-(4-Aminophenyl)pyrrolidin-3-yl]propyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium bromide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium methosulphate  
 [1-(4-aminophenyl)pyrrolidin-3-yl]butyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyl dimethylammonium chloride  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyl dimethylammonium iodide.

134. (New) The composition of claim 40, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide  
 N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammoniumhexyl)dimethylammonium dichloride  
 1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium iodide.

135. (New) The composition of claim 40, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride.

136. (New) The composition of claim 40, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride, and

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride.

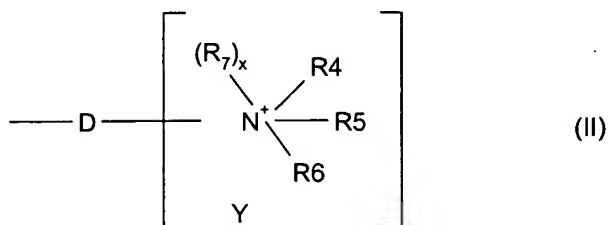
137. (New) The composition of claim 41, wherein the cationic tertiary para-phenylenediamine is such that n is equal to 0.

138. (New) The composition of claim 41, wherein the cationic tertiary para-phenylenediamine is such that n is equal to 1 and R<sub>1</sub> is chosen from the group consisting of a halogen atom; a saturated or unsaturated, aliphatic or alicyclic, C<sub>1</sub>-C<sub>6</sub> hydrocarbon chain; it being possible for one or more carbon atoms to be replaced by an oxygen, nitrogen, silicon or sulphur atom, or by an SO<sub>2</sub> group, the radical R<sub>1</sub> not containing a peroxide bond, or diazo, nitro or nitroso radicals.

139. (New) The composition of claim 41, wherein the cationic tertiary para-phenylenediamine is such that R<sub>1</sub> is chosen from chlorine, bromine, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> hydroxyalkyl, C<sub>1</sub>-C<sub>4</sub> aminoalkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy or C<sub>1</sub>-C<sub>4</sub> hydroxyalkoxy radicals.

140. (New) The composition of claim 139, wherein the cationic tertiary para-phenylenediamine is such that R<sub>1</sub> is chosen from a methyl, hydroxymethyl, 2-hydroxyethyl, 1,2-dihydroxyethyl, methoxy, isopropoxy or 2-hydroxyethoxy radical.

141. (New) The composition of claim 41, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> represents the onium radical Z corresponding to formula (II)



in which

D is a single bond of a linear or branched C<sub>1</sub>-C<sub>14</sub> alkylene chain which may contain one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or amino radicals and which may carry one or more ketone functional groups;

R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub>, taken separately, represent a C<sub>1</sub>-C<sub>15</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> amidoalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical in which the amine is mono- or di-substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; or

R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> together, in pairs, form, with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated carbon ring which may contain one or more heteroatoms, it being possible for the cationic ring to be substituted with a halogen atom, a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxy-alkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a carboxyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl radical, a thio (-SH) radical, a C<sub>1</sub>-C<sub>6</sub> thioalkyl (-R-SH) radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylthio radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical;

R<sub>7</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphinyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a

(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1,

when x = 0, then the linking arm is attached to the nitrogen atom carrying the radicals R<sub>4</sub> to R<sub>6</sub>;

when x = 1, then two of the radicals R<sub>4</sub> to R<sub>6</sub> form, together with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated ring and D is linked to the carbon atom of the saturated ring;

Y is a counter-ion.

142. (New) The composition of claim 141, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> corresponds to formula II in which x is equal to 0 and R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> separately are preferably chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>4</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> amidoalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, or R<sub>4</sub> with R<sub>5</sub> form together an azetidine ring, a pyrrolidine, piperidine, piperazine or morpholine ring, R<sub>6</sub> being chosen in this case from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, an aminoalkyl radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkyl carboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical.

143. (New) The composition of claim 141, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> corresponds to formula II in which x is equal to 1 and R<sub>7</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; R<sub>4</sub> with R<sub>5</sub> together form an azetidine, pyrrolidine,

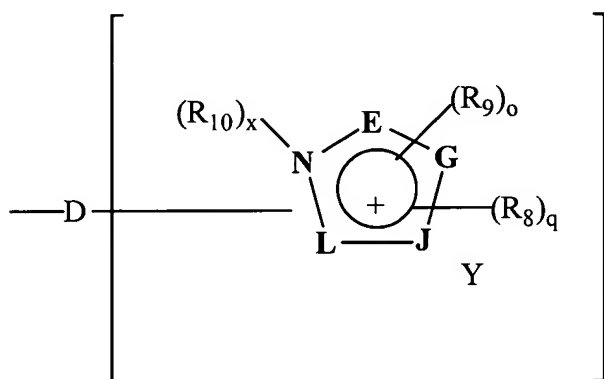


piperidine, piperazine or morpholine ring,  $R_6$  being chosen in this case from a  $C_1$ - $C_6$  alkyl radical; a  $C_1$ - $C_6$  monohydroxyalkyl radical; a  $C_2$ - $C_6$  polyhydroxyl alkyl radical; a  $C_1$ - $C_6$  aminoalkyl radical; a  $C_1$ - $C_6$  aminoalkyl radical whose amine is mono- or di-substituted with a  $(C_1$ - $C_6)$ alkyl,  $(C_1$ - $C_6)$ alkylcarbonyl, amido or  $(C_1$ - $C_6)$ alkylsulphonyl radical; a  $C_1$ - $C_6$  carbamylalkyl radical; a tri $(C_1$ - $C_6)$ alkylsilane $(C_1$ - $C_6)$ alkyl radical; a  $(C_1$ - $C_6)$ alkylcarboxy $(C_1$ - $C_6)$ alkyl radical; a  $(C_1$ - $C_6)$ alkylcarbonyl $(C_1$ - $C_6)$ alkyl radical; an N- $(C_1$ - $C_6)$ alkylcarbamyl $(C_1$ - $C_6)$ alkyl radical.

144. (New) The composition of claim 141, wherein the cationic tertiary para-phenylenediamine is such that D is a single bond or an alkylene chain which may be substituted.

145. (New) The composition of claim 141, wherein the cationic tertiary para-phenylenediamine is such that  $R_2$  is a trialkylammonium radical.

146. (New) The composition of claim 41, wherein the cationic tertiary para-phenylenediamine is such that  $R_2$  represents the onium radical Z corresponding to formula III



(III)

in which

D is a single bond or a linear or branched  $C_1$ - $C_{14}$  alkylene chain which may contain one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl,  $C_1$ - $C_6$  alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a pyrrole, pyrazole, imidazole, triazole, oxazole, isooxazole, thiazole, isothiazole ring,

q is an integer between 0 and 4 inclusive;

r is an integer between 0 and 3 inclusive;

q+r is an integer between 0 and 4;

the radicals  $R_8$ , which are identical or different, represent a halogen atom, a hydroxyl radical, a  $C_1-C_6$  alkyl radical, a  $C_1-C_6$  monohydroxyalkyl radical, a  $C_2-C_6$  polyhydroxyalkyl radical, a  $C_1-C_6$  alkoxy radical, a  $\text{tri}(C_1-C_6)\text{alkylsilane}(C_1-C_6)\text{alkyl}$  radical, an amido radical, a carboxyl radical, a  $C_1-C_6$  alkylcarbonyl radical, a thio radical, a  $C_1-C_6$  thioalkyl radical, a  $(C_1-C_6)\text{alkylthio}$  radical, an amino radical, an amino radical which is mono- or di-substituted with a  $(C_1-C_6)\text{alkyl}$ ,  $(C_1-C_6)\text{alkylcarbonyl}$ , amido or  $(C_1-C_6)\text{alkylsulphonyl}$  radical; a  $C_1-C_6$  monohydroxyalkyl radical or a  $C_2-C_6$  polyhydroxyalkyl radical; it being understood that the radicals  $R_8$  are carried by a carbon atom,

the radicals  $R_9$ , which are identical or different, represent a  $C_1-C_6$  alkyl radical, a  $C_1-C_6$  monohydroxyalkyl radical, a  $C_2-C_6$  polyhydroxyalkyl radical, a  $\text{tri}(C_1-C_6)\text{alkylsilane}(C_1-C_6)\text{alkyl}$  radical, a  $(C_1-C_6)\text{alkoxy}(C_1-C_6)\text{alkyl}$  radical, a  $C_1-C_6$  carbamylalkyl radical, a  $(C_1-C_6)\text{alkylcarboxy}(C_1-C_6)\text{alkyl}$  radical, a benzyl radical; it being understood that the radicals  $R_9$  are carried by a nitrogen,

$R_{10}$  represents a  $C_1-C_6$  alkyl radical; a  $C_1-C_6$  monohydroxyalkyl radical; a  $C_2-C_6$  polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a  $C_1-C_6$  aminoalkyl radical, a  $C_1-C_6$  aminoalkyl radical whose amine is substituted with a  $(C_1-C_6)\text{alkyl}$ ,  $(C_1-C_6)\text{alkylcarbonyl}$ , amido or  $(C_1-C_6)\text{alkylsulphonyl}$  radical; a  $C_1-C_6$  carboxyalkyl radical; a  $C_1-C_6$  carbamylalkyl radical; a  $C_1-C_6$  trifluoroalkyl radical; a  $\text{tri}(C_1-C_6)\text{alkylsilane}(C_1-C_6)\text{alkyl}$  radical; a  $C_1-C_6$  sulphonamidoalkyl radical; a  $(C_1-C_6)\text{alkylcarboxy}(C_1-C_6)\text{alkyl}$  radical; a  $(C_1-C_6)\text{alkylsulphonyl}(C_1-C_6)\text{alkyl}$  radical; a  $(C_1-C_6)\text{alkylsulphonyl}(C_1-C_6)\text{alkyl}$  radical; a  $(C_1-$

C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

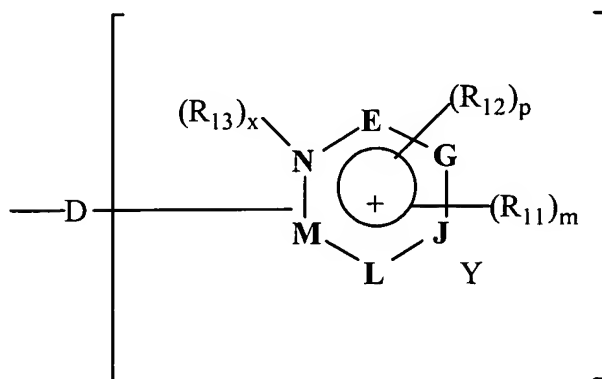
when x = 1, the linking arm D is attached to one of the vertices E, G, J or L,

Y is a counter-ion.

147. (New) The composition of claim 146, wherein the cationic tertiary para-phenylenediamine is such that the vertices E, G, J and L form an imidazole ring.

148. (New) The composition of claim 146, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 0, D is a single bond or an alkylene chain which may be substituted.

149. (New) The composition of claim 41, wherein the cationic tertiary para-phenylenediamine is such that R<sub>2</sub> represents an onium radical Z corresponding to formula IV



(IV)

in which:

D is a single bond or a linear or branched C<sub>1</sub>-C<sub>14</sub> alkylene chain which may contain one or more heteroatoms chosen from an oxygen, sulphur or nitrogen atom, and which

may be substituted with one or more hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L and M, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a ring chosen from the pyridine, pyrimidine, pyrazine, triazine and pyridazine rings;

p is an integer between 0 and 3 inclusive;

m is an integer between 0 and 5 inclusive;

p+m is an integer between 0 and 5;

the radicals R<sub>11</sub>, which are identical or different, represent a halogen atom, a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a carboxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, a thio radical, a C<sub>1</sub>-C<sub>6</sub> thioalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylthio radical, an amino radical, an amino radical which is substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical or a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; it being understood that the radicals R<sub>11</sub> are carried by a carbon atom,

the radicals R<sub>12</sub>, which are identical or different, represent a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a benzyl radical; it being understood that the radicals R<sub>12</sub> are carried by a nitrogen,

R<sub>13</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carboxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a C<sub>1</sub>-C<sub>6</sub> trifluoroalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a C<sub>1</sub>-C<sub>6</sub> sulphonamidoalkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarboxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-

C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylsulphonamido(C<sub>1</sub>-C<sub>6</sub>)alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

when x = 1, the linking arm D is attached to one of the vertices E, G, J, L or M,

Y is a counter-ion.

150. (New) The composition of claim 149, wherein the vertices E, G, J, L and M form, with the nitrogen of the ring, a ring chosen from pyridine and pyrimidine rings.

151. (New) The composition of claim 149, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 0 and R<sub>11</sub> is chosen from a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical or a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical and R<sub>12</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical.

152. (New) The composition of claim 149, wherein the cationic tertiary para-phenylenediamine is such that x is equal to 1 and R<sub>13</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical; a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical; a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical; a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical, a C<sub>1</sub>-C<sub>6</sub> aminoalkyl radical whose amine is mono- or di-substituted with a (C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl radical, an amido radical, a (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical; a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; a (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; an N-(C<sub>1</sub>-C<sub>6</sub>)alkylcarbamyl(C<sub>1</sub>-C<sub>6</sub>)alkyl radical; R<sub>11</sub> is chosen from a hydroxyl radical, a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a C<sub>1</sub>-C<sub>6</sub> alkoxy radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, an amido radical, a C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di-substituted

with a (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl, amido or (C<sub>1</sub>-C<sub>6</sub>)alkylsulphonyl radical; and R<sub>12</sub> is chosen from a C<sub>1</sub>-C<sub>6</sub> alkyl radical, a C<sub>1</sub>-C<sub>6</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>6</sub> polyhydroxyalkyl radical, a tri(C<sub>1</sub>-C<sub>6</sub>)alkylsilane(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl radical, a C<sub>1</sub>-C<sub>6</sub> carbamylalkyl radical.

153. (New) The composition of claim 149, wherein the cationic tertiary para-phenylenediamine is such that R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub> are alkyl radicals which may be substituted.

154. (New) The composition of claim 41, wherein the cationic tertiary para-phenylenediamine is such that the radical R<sub>2</sub> is the radical of formula -XP(O)(O-) OCH<sub>2</sub>CH<sub>2</sub>N<sup>+</sup>(CH<sub>3</sub>)<sub>3</sub> where X represents an oxygen atom or a radical -NR<sub>14</sub>, R<sub>14</sub> representing a hydrogen, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a hydroxyalkyl radical.

155. (New) The composition of claim 41, wherein the cationic tertiary para-phenylenediamine is such that the radical R<sub>2</sub> is a guanidine radical of formula -X-C=NR<sub>8</sub>-NR<sub>9</sub>R<sub>10</sub>, X represents an oxygen atom or a radical -NR<sub>11</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub> and R<sub>11</sub> representing a hydrogen, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a hydroxyalkyl radical.

156. (New) The composition of claim 41, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride,

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide

N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethyl-guanidinium chloride

N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammonium-hexyl)dimethylammonium dichloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]oxophosphorylcholine  
 {2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}trimethylammonium chloride  
 1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium chloride  
 3-{3-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-ium  
 chloride  
 1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride  
 3-{3-[1-(5-trimethylsilanylethyl-4-Amino-3- trimethylsilanylethylphenyl)pyrrolidin-3-  
 yloxy]propyl}-1-methyl-3H-imidazol-1-um chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride  
 N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium  
 chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-  
 trimethylsilanylpropylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(trimethylammoniumhexyl-  
 dimethylammonium dichloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]oxophosphorylcholine  
 {2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}trimethylammonium chloride  
 1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium  
 chloride  
 3-{3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]-propyl} 1-methyl-3H-imidazol-1-  
 um chloride

1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride

[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

3-{3-[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-um chloride

[1-(5-trimethylsilanylethyl-4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(5-trimethylsilanylethyl-4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3-{[1-(4-Amino-3-methylphenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium iodide,

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium methosulphate



[1-(4-aminophenyl)pyrrolidin-3-yl]butyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium chloride  
 [1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium iodide.

157. (New) The composition of claim 41, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide  
 N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl](2-hydroxyethyl)dimethylammonium chloride  
 [1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride  
 [1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride  
 N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride  
 N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]guanidinium chloride  
 3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilanylpropylammonium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3-{[1-(4-Amino-3-methylphenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanyl-propyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyl dimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyl dimethylammonium iodide

[1-(4-Aminophenyl)pyrrolidin-3-yl]propyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyl dimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyl dimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]heptyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]octyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]decyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyl dimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyl dimethylammonium iodide.

158. (New) The composition of claim 41, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide

N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethylguanidinium chloride

N-[1-(4-Aminophenyl)pyrrolidin-3-yl]guanidinium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammoniumhexyl)dimethylammonium dichloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-ium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyl dimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyl dimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyl dimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyl dimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide  
[1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide  
[1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide  
[1-(4-aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide  
[1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide  
[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide  
[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyl dimethylammonium chloride  
[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyl dimethylammonium iodide.

159. (New) The composition of claim 41, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride  
3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride  
[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride  
1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-ium chloride.

160. (New) The composition of claim 41, wherein the cationic tertiary para-phenylene is chosen from the group consisting of:

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride, and  
[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride.